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09/291,832

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JACOBSEN

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WM02/1214

EXAMINER

LESERANCE, J

ART UNIT

PAPER NUMBER

2674

DATE MAILED:

12/14/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/291,832

Applicant(s)

Rolfgang Jacobsen et al.

Examiner

Jean Lesperance

Group Art Unit

2674



☐ Responsive to communication(s) filed on _____

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1035 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-25 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-25 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 6 and 7

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-25 are rejected under 35 U.S.C. 103 (a) as being unpatentable over patent # 5,317,140 ("Dunthorn") in view of patent # 4,699,468 ("Harasin et al.").

As for claims 1-3 and 21-25, Dunthorn teaches a display device with touch sensor (column 16, lines 31-39), consisting of an electrochromic cell known per se or a liquid crystal cell (column 2, lines 30-43), characterized in that the electrochromic cell or the liquid crystal cell is located between a transparent cover plate (1) and a transparent support plate (column 2, lines 30-43) (2), and a radiation source (column 19, lines 58-64) (3) whose light enters the cover plate (column 2, lines 30-43). Accordingly Dunthorn teaches all the claimed limitations as recited in claims 1-3 with the exception of providing a photodetector.

However, Harasin et al, teach a photodetector (column 5, lines 44-66).

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It would have been obvious to utilize the photodetector as taught by Harasin et al. in the system for visual pen detection disclosed by Duthorn because this would provide a liquid crystal modulator capable of modulating light linearly over a large range of surface in the visible or infrared range.

As for claim 4, Harasin et al. teach a liquid crystal cell (column 1, lines 16-25) has a coating on the bottom plate, which predominantly reflects visible light while it is predominantly transparent to the light emitted by the radiation source (column 4, lines 44-56).

As for claim 5, Harasin et al. teach a liquid crystal cell (column 1, lines 16-25) has a coating on the bottom plate which preferably contains a location transparent to the light from the radiation source at the center of the photosensitive solid angle range of the photodetector (column 1, lines 61-68 and column 2, lines 1-13).

As for claim 6, Harasin et al. teach the liquid crystal cell (column 1, lines 16-25) has a semitransmissive and semireflecting coating on the bottom plate (column 4, lines 44-56).

As for claim 7, Harasin et al. teach a liquid crystal medium is two-dimensionally illuminated from the side facing the support plate (Fig. 7d)

As for claims 8-10, Harasin et al. teach a two-dimensional illumination is carried out through an optically transparent grid plate which is arranged between the bottom plate and the support plate (Fig. 7d), a light source being arranged on at least one of the end faces of the grid plate and the grid plate having, on the side remote from the support plate, an optically refractive grid like surface structure for positionally metered emergence of light from the interior of the

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plate, and a scattering layer serving as an illumination surface being arranged on or over this side (Fig. 7a).

As for claims 11-12, Harasin et al. teach a cover plate (column 3, lines 18-53) and its thickness of at least 0.05 mm and preferably at least 0.5 mm is just a design choice

As for claims 13-15, Harasin et al. teach an electrode layer (column 3, lines 18-53) corresponding to the intermediate layer is located between the top plate of the electrochromic cell or of the liquid crystal cell and the cover plate.

As for claim 16-18, Harasin et al. teach a radiation source (column 5, lines 44-66) has an emission maximum at a wavelength (column 1, lines 61-68 and column 2, lines 1-13) and the range of preferably more than 780 nm and particularly preferably more than 850 nm is just a design choice.

As for claim 19, Harasin et al. teach a plate are coated with an optically reflecting material (column 3, lines 18-53) and (column 4, lines 44-56).

As for claim 20, Harasin et al. teach an optically reflecting material (column 3, lines 18-53), and the layers are produced by evaporation coating (column 3, lines 18-53, sputtering or adhesive bonding of metal-coated films.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (703) 308-6413. The examiner can normally be reached on from Monday to Friday between 8:00AM and 4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard HJerpe, can be reached on (703) 305-4709 . The fax phone number for the organization where this application or proceeding is assigned is (703) 308-6606.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Jean Lesperance



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Date 12-7-2000



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600